



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,317	12/20/2005	John Stark	P/1336-201	2795
2352 7590 07/13/2010 OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403				
EXAMINER				
WEINSTEIN, LEONARD J				
ART UNIT		PAPER NUMBER		
3746				
MAIL DATE		DELIVERY MODE		
07/13/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/561,317

Applicant(s)

STARK, JOHN

Examiner

LEONARD J. WEINSTEIN

Art Unit

3746

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 28 June 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: _____.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Devon C Kramer/
Supervisory Patent Examiner, Art Unit 3746

/Leonard J Weinstein/
Examiner, Art Unit 3746

Continuation of 11, does NOT place the application in condition for allowance because: Response to Arguments

1. Applicant's arguments filed June 28, 2010 have been fully considered but they are not persuasive.

2. With respect to the rejection of claim 9 under 35 U.S.C. 103(a) as being unpatentable over the combination of Stark et al. WO 01/16493 ("Stark") in view of Frenzl US 3,823,872 ("Frenzl"), further in view of Smith US 5,697,361 ("Smith"), further in view of Zindl US 6,899,198 ("Zindl") the applicant argues that:

a. With respect to Smith

i. Element 125 of Smith is not a diverging section. After Final Amendment of June 28, 2010 ("Amendment"), pg. 2.

Response: The examiner stated that Smith taught "a porous diverging section 125" in the previous office action. Office Action of Feb. 26, 2010 ("Office Action"), pg. 6, sec. 6.b.i. The applicant correctly points out that element 125 is not a diverging section however the examiner also stated that "element 125 in analogous to the porous diverging section 22 [of Frenzl]." Office Action, pg. 5, sec. 6.b.ii. Therefore it is not critical that the section of Smith be diverging since element 22 of Frenzl is taught as diverging and has a similar internal structure to that of Smith.

ii. One of ordinary skill in the art would not recognize based upon the noise reduction characteristics of a porous cylindrical porous section the noise reduction characteristics of a porous diverging section of a jet pump/ejector. Amendment, pg. 2.

Response: Element 22 of Frenzl and element 125 of Smith are analogous because they are both porous sections surrounding respective pump in the location of induction ports. Both elements provide layers between in coming fluid and induction ports that communicate with fluid that is conveyed through a nozzle. Both elements are taught as introducing the same type of fluid to their respective pumps. In Smith the fluid introduced is breathable ambient air (a gas) and in Frenzl the fluid is steam which is the gaseous form of water. The similarities in composition/internal structure and basic function provide adequate evidence that the porous section of Frenzl which is diverging could serve the dual purpose of a noise reducer and pump efficiency enhancer.

b. With respect to Zindl

i. Zindl teaches that fine pores render possible the passage of compressed air given a sufficiently high pressure gradient and does not teach the varying the size of pores for the purpose of providing relatively silent suction with out reducing capacity. Amendment, pg. 2-3. Response: Zindl teaches two parameters of pressurized fluid flow being affected by the size of pores in a muffler.

The first parameter is noise reduction. The applicant argues that the Zindl exclusively teaches that the sizes of the pores in the muffler are changed to make possible passage of fluid at a sufficient pressure gradient. Amendment, pg. 3 (quoting Zindl, col. 3, ll. 44-47). However the applicant has overlooked the inherent and primary function of Zindl as a muffler. It is well known in the art that the primary purpose of a muffler is to reduce the noise of a fluid passing through a space. Zindl teaches "the muffler section 16 consists exclusively of a muffler body 18 of porous muffler material." Zindl, col. 3 ll. 39-41. If a muffler is exclusively formed of a single material, then the characteristics of that material must affect the muffler's ability to perform its intended function. If the primary intended function of the muffler is to reduce noise then any change to the components of the muffler are done with purpose of maintaining or enhancing its ability to perform its intended function. Therefore if the pores sizes in the material of which the muffler is exclusively composed of are varied in order to permit passage of air under a certain pressure gradient, the variation is done with the inherent purpose of the muffler maintaining or enhancing its ability to perform its intended function of reducing noise.

The second parameter is passage of fluid under a certain pressure gradient. This explicitly teaches varying the size of pores to affect the amount of fluid passing through the muffler, or its capacity for fluid passage. One of ordinary skill in the art would recognize that the pore sizes of Zindl are varied to allow a desired amount of fluid passage while maintaining or enhancing the level of noise reduction.

c. With respect to pore sizes having a range of 50 to 500µm

i. The applicant argues that the prior art does not identify parameter of pores sizes being a results-effective variable for noise reduction.

Response: The inherent function of Zindl as a muffler is again relied upon in response to the applicant's argument. Zindl inherently teaches that a change in pore size affects the performance of a muffler to reduce sound because the muffler is made exclusively of materials of which the only aspect of their design which is changed is the size of the pores within. Any change in the size of the pores to permit passage of fluid at certain pressure gradient is done to maintain or enhance the muffler's ability to reduce noise.

3. With respect to the rejection of claim 16 as being unpatentable over the combination of Stark in view of Frenzl, further in view of Smith, further in view of Zindl the applicant argues that the teachings of Stark seem to contradict the teachings of Frenzl and the combination of references would not produce a device wherein fluid profiles would remain in contact with walls of the second and third diverging sections.

Response: Frenzl teaches that a steam layer "minimizes the tendency for water striking the nozzle walls to form a liquid boundary layer in the diverging portions of the nozzle." Frenzl, col. 5, ll. 54-56. Frenzl doesn't teach that fluid is not in contact with the walls of diverging sections, the instant reference teaches that fluid passing through the diverging section comes in contact with the walls however it does not remain there so long as to form a fluid boundary layer. This means that fluid from the inlet does contact the walls (at the fluid "strikes" the walls) of the diverging sections and continues to flow through the nozzle. Stark teaches reducing wear on the inner walls by reducing the turbulence of fluid flowing through a double cone device. Stark, pg. 4 ll. 20-26. Frenzl teaches that a gas layer is formed on the wall section of the porous diverging section while still permitting the inlet fluid to strike the wall section without forming a liquid boundary layer. Nothing in Frenzl suggests that having gas layer boundary increases the wear on the walls of the diverging sections.

4. With respect to the rejection of claim 17 as being unpatentable over the combination of Stark in view of Frenzl, further in view of Smith, further in view of Zindl, the applicant argues that the instant references do not teach providing a continuous geometry to reduce noise during operation of the device.

Response: Stark teaches a double cone device with a continuous geometry. Frenzl teaches a porous diverging section with a continuous geometry with part 19 forming a downstream zone 20. The combination of Stark and Frenzl would provide for a diverging porous section located adjacent to a neck 19 of Stark with continuous geometry with an exit cone 4 (analogous to the part 19 forming the downstream zone 20 of Frenzl). It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987). Claim 17 claims that the continuous geometry for a device is intended to reduce noise. However the combination of references teaches the claimed structure of a continuous geometry. Therefore the limitations of claim 17 do not differentiate the apparatus claimed from the prior art. .